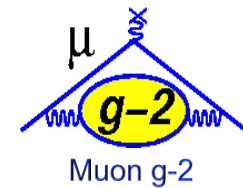




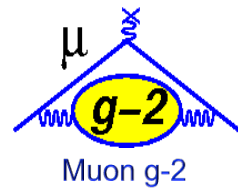
Muon g-2 Status



Brendan Kiburg
Fermilab
All Experimenters' Meeting
Sept 30, 2013



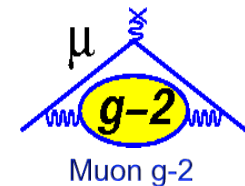
Muon g-2 Collaboration



140 Collaborators, 33 institutions, 8 countries



Subsystem: Ring



- Ring arrived July 26, 2013
 - About half of the magnet steel on site
- Current status:
 - Stored near the MTest facility
 - Maintaining a nitrogen overpressure in the ring cryostats
 - Installation of tent to provide winter protection and work area
- Next Steps:
 - Warm tests of ring instrumentation and interconnects
 - Ship remaining ring equipment, and magnet steel
 - Continue to develop precision alignment plans with metrology group
 - MC-1 cryogenic system slated for Jan 2015



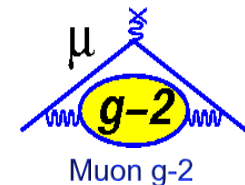
Subsystem: Detector



- NSF MRI awarded for \$3.6 M
 - Includes 30% contribution from collaborating institutions and industry donations (all ADCs donated by Texas Instruments)
 - Funds most of detector package
- Current Status
 - Advancing from conceptual design to engineering design
 - Building prototypes
- Next Steps
 - Individual beam tests
 - Eye towards integrated beam test



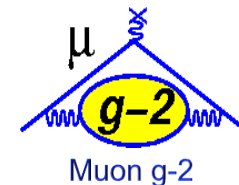
Subsystem: Accelerator



- Integrated with 7 ongoing accelerator improvement projects (AIP) and general plant projects (GPP)
- Current Status
 - Test Stand confirmed 12 Hz pulsing of Lithium Lens works, and is anticipated to work indefinitely
 - Over 70 million pulses to date on the test stand
 - Testing different cooling options for the transformers
- Planned Accelerator Tests
 - Goal: Confirm Target Yield using Cherenkov counters; test refurbished beam instrumentation and new electronics
 - Oct: Establish normal beam operation
 - Nov: Install instrumentation
 - Dec: Begin beam tests



CD-1 Review Process



- CD1 Reviews
 - Independent Design Review, June
 - Director's review of Muon Campus, June
 - Director's Review of g-2 project, July
 - Lehman Review, Sept 17-18
- Extensive Documentation
 - Conceptual Design Report (498 pages)
 - Basis of Estimates, Schedule
 - Risk Registry, Risk Management Plan
 - WBS Dictionaries
 - Hazard Analysis, Quality Assurance, Value Engineering
 - Etc, etc, etc.....

CD-1 Closeout

The Detector design, costing, and schedule are at the level of or exceed the level expected for CD-1 ...

The project is well organized and has identified resources with the appropriate disciplines and level of experience to support the scope of work ...

Proceed to CD-1 approval.



Upcoming Milestones



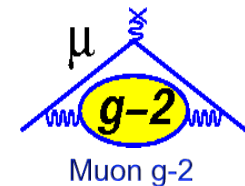
- Beneficial Occupancy of MC-1 : Feb 2014



- Beam Tests
 - Accelerator Target Yield and Instrumentation, Fall 2013
 - Straw Tracker System Prototype, FTBF Jan 2014
 - Lead Fluoride Segmented Calorimeter, SLAC Nov 2013
- Ring Tests
 - Resistance and Cryo Instrumentation tests, Fall 2013
- Advance the Conceptual Design to a Technical Design



Conclusions



- Very successful summer
 - Completed the conceptual design
 - Smoothly transferred critical ring system
 - Preparing tests in all subsystems to refine design and costs in advance of CD-2 baselining

